

**ABSTRACT**

A simplified process for the partial purification of contaminated phosphoric acid plant pond water having a molar calcium plus magnesium to fluorine ratio greater than or equal to about 0.60, is described, in which the pond water is treated with a basic compound, clarified, aged, clarified again and re-acidified. The thus treated pond water, still containing the majority of the phosphate originally present, can then be concentrated via the removal of essentially pure water, using any conventional means of concentration, without the formation of solid precipitates.